



View of proposed commercial activity on K Street (top)

Historic view of New York Avenue west of Mount Vernon Square (bottom left)

View of typical DC residential street (bottom right)

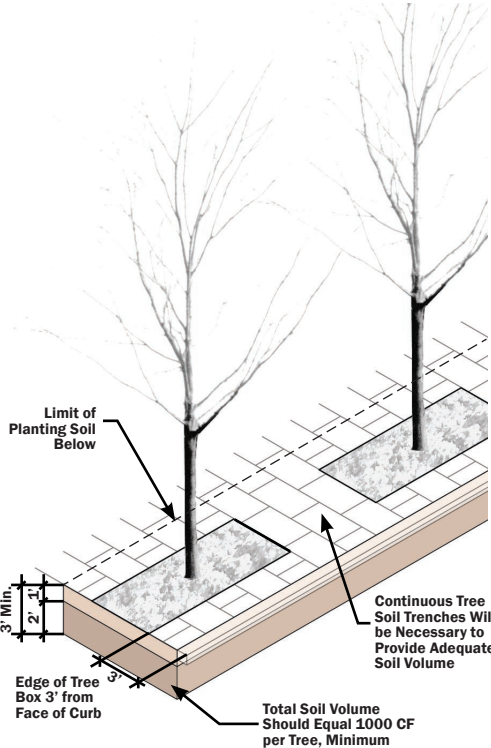


The design guidelines define a detailed palette of materials to be used throughout the Mount Vernon Triangle's streetscape and public realm. As a whole, this palette articulates a distinctive identity that unifies the new neighborhood while allowing sufficient flexibility to accommodate unique circumstances. The palette is made up of contextually appropriate, durable materials that support basic comfort, livability, sustainability, and an elegant, enduring aesthetic.

The material palette visibly expresses the functional hierarchy within the neighborhood. As regional connectors, the Avenues are the most prominent components of the Triangle. K Street, the neighborhood's central commercial corridor, is second in status. The Triangle's other streets, reservations, and parks constitute the third tier in the neighborhood hierarchy.

The design guidelines include selections of street trees, street tree surface treatments, other plantings, lighting, site furniture, and paving. For each element, brief descriptions are accompanied by a chart specifying the element type to be used on each street within the Triangle. The guidelines are fully compatible with DDOT standards. It is suggested that other reports, such as the AWI Transportation Architecture Design Standards and the Downtown Standards, be consulted for additional information.

Design Guidelines



STREET TREE PLANTING DETAIL

SPACING

Street trees are spaced approximately 30'-40' on center except for on New York Avenue, where tighter spacing of approximately 25'-30' on center allows for a more continuous street edge.

SIZE

Street trees are planted at 2.5"-3" caliper (CAL) unless otherwise noted. On K Street, the London Planetrees are 4" CAL and the specimen trees at 5th and K are 8" CAL.

STAKING

Street trees on K Street are supported using a subsurface earth anchoring system. Staking of street trees on all other streets is discouraged.

SOILS

Total soil volume per street tree should equal 1000 cubic feet (CF), minimum, at 3' depth. On K Street, where large trees are planted amongst shrubs and groundcovers, 1500 CF per tree at 4' depth is needed. Continuous tree trenches are recommended (see diagram above). Specifications for planting soils may vary depending on existing conditions and proposed planting.

SPECIES

Single species are specified for prominent streets and avenues as a unified gesture that provides special definition and character to the street. On all other streets, mixed species from the listed palette enable individual choice to determine a diverse urban canopy.

EXISTING TREES

On all streets and avenues, existing trees are to be assessed for health and vigor. Those in good or excellent condition are preserved and incorporated into the palette specified for that street. A preliminary reference for assessing tree health is the Casey Trees Tree Map, which can be accessed online at www.caseytrees.org. During construction, every effort should be made to protect existing healthy trees from damage.

RECOMMENDED STREET TREES

| Latin Name | Cultivar/Variety | Common Name |
|-------------------------------------|----------------------------------|-----------------------|
| SMALL | | |
| <i>Acer buergerianum</i> | Streetwise | Trident Maple |
| <i>Crataegus crusgalli inermis</i> | Crusader | Cockspur Hawthorn |
| <i>Crataegus phaenopyrum</i> | Princeton Sentry | Washington Hawthorn |
| <i>Maackia amurensis</i> | Starburst | Amur Maackia |
| MEDIUM | | |
| <i>Koelreuteria paniculata</i> | September | Golden Raintree |
| <i>Tilia cordata</i> | Greenspire | Littleleaf Linden |
| <i>Zelkova serrata</i> | | Zelkova |
| LARGE | | |
| <i>Celtis occidentalis</i> | Magnifica | Hackberry |
| <i>Ginkgo biloba</i> | Autumn Gold, Princeton Sentry | Ginkgo |
| | (male cultivars) | |
| <i>Gymnocladus dioica</i> | (male cultivars) | Kentucky Coffeetree |
| <i>Metasequoia glyptostroboides</i> | | Dawn Redwood |
| <i>Quercus phellos</i> | | Willow Oak |
| <i>Quercus bicolor</i> | | Swamp White Oak |
| <i>Platanus xacerifolia</i> | Yarwood, Bloodgood | London Planetree |
| <i>Styphnolobium japonicum</i> | Regent | Japanese Scholar Tree |
| <i>Ulmus parvifolia</i> | Emer I (Athena), Emer II (Allee) | Lacebark Elm |

MATRIX OF STREETS AND RECOMMENDED STREET TREES

| | | | | | | | | | | |
|----------------------|------------------------|--------|-------|------------|---------------|-----------------|--------------------|---------------------|--|--|
| Massachusetts Avenue | SEE ALSO PAGES 28 - 29 | | | | | | | | | |
| Curb-side row | | | | | | | | | | |
| Center row | | | | | | | | | | |
| Building-front row | | | | | | | | | | |
| New York Avenue | SEE ALSO PAGES 28 - 29 | | | | | | | | | |
| Curb-side row | | | | | | | | | | |
| Double row | | | | | | | | | | |
| Building-front row | | | | | | | | | | |
| New Jersey Avenue | SEE ALSO PAGES 28 - 29 | | | | | | | | | |
| Curb-side row | | | | | | | | | | |
| Center row | | | | | | | | | | |
| Building-front row | | | | | | | | | | |
| H Street | | | | | | | | | | |
| Eye Street | | | | | | | | | | |
| K Street | SEE PAGES 22 - 25 | | | | | | | | | |
| L Street | | | | | | | | | | |
| 7th Street | NONE | | | | | | | | | |
| 6th Street | | | | | | | | | | |
| 5th Street | | | | | | | | | | |
| 4th Street | | | | | | | | | | |
| 3rd Street | | | | | | | | | | |
| 2nd Street | | | | | | | | | | |
| | SMALL | MEDIUM | LARGE | ORNAMENTAL | MIXED SPECIES | QUERCUS BICOLOR | GYMNOCLADUS DIOICA | CELTIS OCCIDENTALIS | | |



Planter edging



Unit pavers

MATRIX OF STREETS AND RECOMMENDED STREET TREE SURFACE TREATMENTS

| | | | | |
|----------------------|----------------|--|-------------|-------------|
| Massachusetts Avenue | | | | |
| Curb-side row | | | | |
| Center row | | | | |
| Building-front row | | | | |
| New York Avenue | | | | |
| Curb-side row | | | | |
| Double row | | | | |
| Building-front row | | | | |
| New Jersey Avenue | | | | |
| Curb-side row | | | | |
| Center row | | | | |
| Building-front row | | | | |
| H Street | | | | |
| Eye Street | | | | |
| K Street | | | | |
| L Street | | | | |
| 7th Street | | | | |
| 6th Street | | | | |
| 5th Street | | | | |
| 4th Street | | | | |
| 3rd Street | | | | |
| 2nd Street | | | | |
| | PLANTER EDGING | RAISED PLANTER EDGING WITH METAL RAILING | GROUNDCOVER | UNIT PAVERS |



K Street metal railing precedent

PLANTER EDGING

For all streets except K Street, all tree boxes are edged with hoop-type metal edging on all four sides to protect tree roots and groundcover planting from foot traffic. Tree grates are strongly discouraged.

RAISED PLANTER EDGING WITH METAL RAILING

A raised granite edging and metal rail surround the planting beds on K Street. The edge is raised on three sides and flush on the building side to allow water to drain into the planting beds. The metal rail should be approximately 18" high and contemporary in style. An example of a similar rail is shown above.

GROUNDCOVER

For newly planted trees and existing trees under 6" CAL, annuals that won't compete with the tree for water are planted in the tree boxes. For established trees, a combination of groundcovers and perennials can be used for lasting effect. The following plants are suggested:

- Bulbs** – *Chionodoxa forbesii*, *Scilla siberica*, *Narcissus spp.*, *Crocus spp.*, *Leucojum spp.*
- Annuals** – *Impatiens*, *Coleus*, *Ipomoea*, *Lantana*, *Melampodium*, *Scaevola*, *Lobularia maritimum*
- Perennials** – *Liriope muscari*, *Parthenocissus quinquefolia*, *Pachysandra terminalis*, *Geranium 'Rozanne'*, *Alchemilla mollis*, *Euphorbia var. robbiae*

UNIT PAVERS - LOW-IMPACT DEVELOPMENT OPPORTUNITY

Permeable unit pavers or unit pavers with wide joints set in a permeable setting bed are recommended between curb-side tree boxes along the Avenues to maximize the amount of water available to tree roots in this particularly harsh growing environment, as well as allowing for reduced runoff and increased groundwater recharge.

Street Trees - Surface Treatment

GENERAL RECOMMENDATIONS

Other planted areas in the Triangle, such as neighborhood parks and private gardens, should be handled in the spirit of the broader goals driving the design of the streetscape and public realm as a whole. Before the design process begins, the condition of existing plants should be assessed. Future maintenance and irrigation options should be considered as design proceeds. Soils should be tested and amended accordingly. In general, plantings should incorporate trees, shrubs, and perennials that offer multi-season interest. Large numbers of each plant should be used for a bold effect (e.g. 5-7 of each shrub, 20-30 of each perennial, and 100-150 of a groundcover).

RECOMMENDED PLANT LIST

| Latin Name | Cultivar/Variety | Common Name |
|----------------------------|------------------|-------------|
| Street Trees - see page 34 | | |

| Ornamental Trees | | |
|-------------------------------|----------------|----------------------|
| <i>Acer palmatum</i> | Bloodgood | Japanese Maple |
| <i>Betula nigra</i> | Heritage | River Birch |
| <i>Cercis canadensis</i> | Forest Pansy | Eastern Redbud |
| <i>Chionanthus virginicus</i> | | Fringe Tree |
| <i>Cornus florida</i> | | Flowering Dogwood |
| <i>Crataegus viridis</i> | Winter King | Winter King Hawthorn |
| <i>Fagus grandifolia</i> | | American Beech |
| <i>Halesia carolina</i> | | Carolina Silverbell |
| <i>Ilex opaca</i> | | American Holly |
| <i>Lagerstroemia</i> | Natchez, Acoma | Crape Myrtle |
| <i>Magnolia xsoulangiana</i> | | Saucer Magnolia |
| <i>Oxydendrum arboreum</i> | | Sourwood |
| <i>Prunus serrulata</i> | Kwansan | Kwansan Cherry |

| Shrubs | | |
|---------------------------------|-------------------------|---------------------|
| <i>Berberis thunbergii</i> | Crimson Pygmy, Aurea | Barberry cultivars |
| | Rosy glow | |
| <i>Buxus</i> | Green Velvet, | Boxwood |
| | Green Gem | Camellia |
| <i>Camellia</i> | Polar Ice, Snow Flurry, | |
| | and other varieties | |
| <i>Cornus alba</i> | Elegantissima | Red Stem Dogwood |
| <i>Cornus sericea</i> | Silver and Gold | Yellow Stem Dogwood |
| <i>Cotoneaster horizontalis</i> | | Rockspray |
| <i>Hibiscus syriacus</i> | Bluebird, Diana, etc. | Rose of Sharon |
| <i>Hydrangea macrophylla</i> | Nikko Blue, Variegata, | Hydrangea cultivars |
| | Endless Summer | |

| | | |
|------------------------------|----------------------------|-----------------------|
| <i>Hydrangea quercifolia</i> | | Oak Leaf Hydrangea |
| <i>Ilex verticillata</i> | Winter Red | Winter Berry |
| <i>Ilex xmeserveae</i> | Blue Princess, Blue Prince | Blue Holly |
| <i>Jasminum nudiflorum</i> | | Winter Jasmine |
| <i>Juniperus squamata</i> | Blue Star | Blue Star Juniper |
| <i>Loropetalum chinense</i> | Burgundy | Chinese Fringe Flower |
| <i>Pieris japonica</i> | Dorothy Wyckoff | Andromeda |
| <i>Picea pungens</i> | R.H. Montgomery | |
| <i>Pinus mugo</i> | Pumilo | Dwarf Mugo Pine |
| <i>Prunus xcistena</i> | | Purple Sand Cherry |
| <i>Prunus laurocerasus</i> | Otto Luykens | Cherry Laurel |
| <i>Rhododendron</i> | Allure, Balsaminiflorum, | Hybrid Evergreen |
| | and other varieties | Azaleas |
| <i>Rosa</i> | Carefree Wonder | Roses |
| | and other varieties | |

| | | |
|-----------------------------|-------------------------|-----------------------|
| <i>Sarcococca hookerana</i> | | Himalayan Sarcococca |
| <i>Skimmia japonica</i> | | Japanese Skimmia |
| <i>Spiraea thunbergii</i> | Ogon/Agon | Agon Spiraea |
| <i>Stephanandra incisa</i> | Crispa | Cut Leaf Stephanandra |
| <i>Thuja occidentalis</i> | Emerald Green | |
| <i>Vitex agnus-castus</i> | | Chaste Tree |
| <i>Yucca filamentosa</i> | Gold Sword, Bright Edge | Variegated Adam's |
| | | Needle |

| Perennials | | |
|---------------------------|--|---------------|
| <i>Alchemilla mollis</i> | | Lady's Mantle |
| <i>Amsonia hubrichtii</i> | | Bluestar |

| Latin Name | Cultivar/Variety | Common Name |
|---|----------------------|---------------------|
| <i>Anemone tomentosa</i> | Robustissima | Japanese Anemone |
| <i>Anemone japonica</i> | Honorine Jobert | Japanese Anemone |
| <i>Astilbe chinensis var. tacquetii</i> | Superba | Astilbe |
| <i>Brunnera macrophylla</i> | | Siberian Bugloss |
| <i>Carex elata</i> | Aurea | Variegated Sedge |
| <i>Echinacea purpurea</i> | Magnus | Purple Coneflower |
| <i>Geranium</i> | Rozanne | |
| <i>Geranium macrorrhizum</i> | | Bigroot Geranium |
| <i>Hakonechloa macra</i> | Aureola | Variegated Hakone |
| <i>Helleborus xhybridus</i> | | Lenten Rose |
| <i>Helleborus foetidus</i> | | Stinking Hellebore |
| <i>Hemerocallis</i> | Happy Returns | Daylily |
| <i>Heuchera</i> | Plum Pudding | Coral Bells |
| <i>Hibiscus moscheutos</i> | Lord Baltimore, Lady | Rose Mallow |
| | Baltimore | |
| <i>Hosta plantaginea</i> | Aphrodite | August Lily |
| <i>Hosta sieboldiana</i> | Elegans | |
| <i>Nepeta</i> | Walker's Low | Catmint |
| <i>Polygonatum odoratum</i> | Variegatum | Var. Solomon's Seal |
| <i>Salvia officinalis</i> | Berggarten | Sage |
| <i>Salvia</i> | Blue Hill | Meadow Sage |
| <i>Sedum</i> | Autumn Joy, Matrona | Stonecrop |

| Ferns | | |
|----------------------------------|--------|-----------------------|
| <i>Adiantum pedatum</i> | | Maidenhair fern |
| <i>Athyrium nipponicum</i> | Pictum | Japanese painted fern |
| <i>Athyrium felix-femina</i> | | Lady fern |
| <i>Matteuccia struthiopteris</i> | | Ostrich fern |

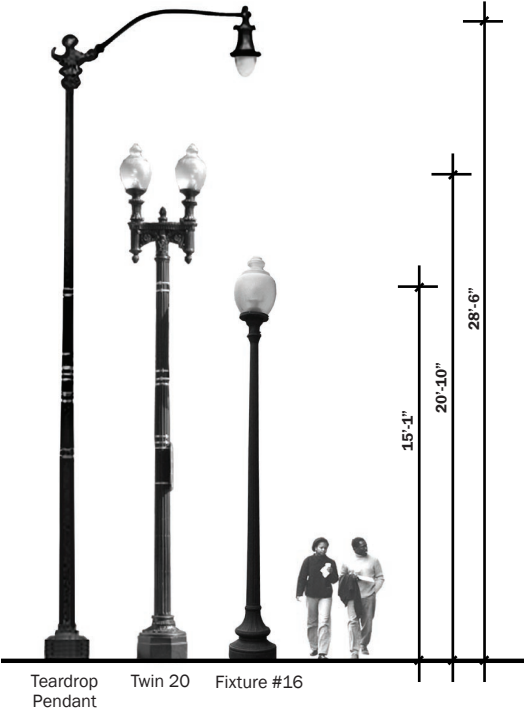
| Grasses | | |
|---------------------------------|---------------|-----------------------|
| <i>Hakonechloa macra</i> | | Hakone Grass |
| <i>Imperata cylindrica</i> | var. rubra | Japanese Blood Grass |
| <i>Miscanthus sinensis</i> | Gracillimus | Eulalia, Silver Grass |
| <i>Panicum virgatum</i> | Haense Hermes | Switch Grass |
| <i>Pennisetum alopecuroides</i> | Moodry | |

| Groundcovers | | |
|-------------------------------|-------------------|---------------------|
| <i>Euonymus fortunei</i> | Coloratus | Wintercreeper |
| <i>Euphorbia amygdaloides</i> | var. robbaie | Wood Spurge |
| <i>Liriope muscari</i> | Big Blue, Silvery | Lilyturf |
| | Sunproof | |
| <i>Lonicera pileata</i> | | Boxleaf Honeysuckle |
| <i>Pachysandra terminalis</i> | Green Sheen | Pachysandra |
| <i>Vinca minor</i> | | Periwinkle |

| Annuals | | |
|------------------------------|-----------------------|-------------------|
| <i>Ageratum</i> | Blue Horizon | |
| <i>Coleus</i> | Compact Red | Coleus |
| <i>Ipomoea batatas</i> | Marguerite, Blackie | Sweet Potato Vine |
| <i>Melampodium paludosum</i> | Lemon Delight | Melampodium |
| <i>Salvia guaranitica</i> | | |
| <i>Salvia</i> | Blue Chiquita, Indigo | |
| | Spires | |

| Vines | | |
|------------------------------------|-----------------|--------------------|
| <i>Campsis radicans</i> | | Trumpet Creeper |
| <i>Hydrangea anomola</i> | var. petiolaris | Climbing Hydrangea |
| <i>Parthenocissus quinquefolia</i> | | Virginia Creeper |

Other Plantings

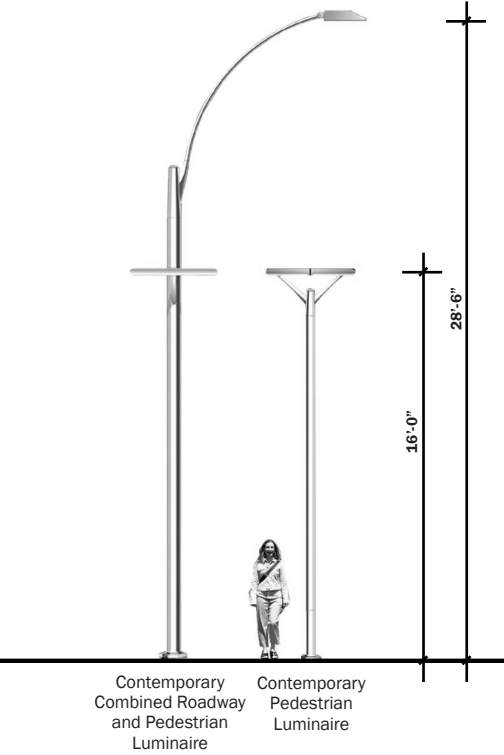


TRADITIONAL PALETTE

Lighting for streets and sidewalks throughout most of the Triangle should follow the traditional palette typical of other DC neighborhoods and boulevards. On the Avenues, a combination of the Teardrop Pendant street light and the single-globe pedestrian light is recommended. For the neighborhood streets, the pedestrian light alone is sufficient. Pole color, mounting height, and bulb type should conform to DDOT standards and be consistent throughout the Triangle.

MATRIX OF STREETS AND RECOMMENDED LIGHTING

| Massachusetts Avenue | | | | | |
|----------------------|------------------|---------|-------------|-----------------------|-------------------------|
| New York Avenue | | | | | |
| New Jersey Avenue | | | | | |
| H Street | | | | | |
| Eye Street | | | | | |
| K Street | | | | | |
| L Street | | | | | |
| 7th Street | | | | | |
| 6th Street | | | | | |
| 5th Street | | | | | |
| 4th Street | | | | | |
| 3rd Street | | | | | |
| 2nd Street | | | | | |
| | TEARDROP PENDANT | TWIN 20 | FIXTURE #16 | CONTEMPORARY COMBINED | CONTEMPORARY PEDESTRIAN |



CONTEMPORARY PALETTE

For 5th Street and K Street, a more contemporary palette of street and pedestrian lighting complements the unique architecture and streetscape and reinforces the special status of these streets as primary retail corridors. On K Street, the Combined Roadway and Pedestrian Luminaire is alternated with the Pedestrian Luminaire. On 5th Street, the Pedestrian Luminaire alone is sufficient. Pole color, mounting height, and bulb type should conform to DDOT standards and should be consistent throughout the Triangle.

SPACING

Street lights along K Street should be positioned opposite each other across the street, in accordance with DDOT standards. This pattern will help define the edge of the street and emphasize the significance of this major retail corridor. Spacing should also conform to DDOT standards. On all other streets and avenues, street lights should be positioned and spaced according to DDOT standards.

Lighting

GENERAL CONCEPT

Benches, trash receptacles, and bicycle racks are intended for retail areas, parks, bus stops, and other public areas. In general, site furniture should not be used along residential streets.

TRADITIONAL METAL BENCH

The traditional metal bench is located in the Reservations and at regular intervals along New Jersey Avenue, with concentrations at bus stops, public parks, and important intersections. The six-foot-long bench is steel, coated with a rust inhibitor and painted black. The bench has end arms and a center arm. Placement and installation conform to DDOT standards.

CONTEMPORARY METAL BENCH

The contemporary metal bench is located at regular intervals along K, 5th, and 6th Streets. The six-foot-long bench has aluminum castings and a perforated steel seat and back. The bench has end arms and a seat divider. Placement and installation conform to DDOT standards.

CUSTOM METAL BENCH

Custom metal benches are located in the Reservations. The design should be in keeping with historical precedent and approved by DDOT and NPS.

TRADITIONAL TRASH RECEPTACLE

Placed at street intersections, adjacent to bus shelters and seating, in front of retail establishments, and in other public areas, these are used in conjunction with the traditional metal benches.

CONTEMPORARY TRASH RECEPTACLE

Placed in front of restaurants and retail establishments, at street intersections, adjacent to seating, and in other public areas, these are used in conjunction with the contemporary metal benches.

BICYCLE RACKS

Placed at bus stops, shopping areas, plazas, parks, and other public facilities in clearly visible locations, the DC standard metal hoop-type bicycle rack is recommended. Place and install according to DC standards.



Traditional metal bench



Contemporary (left) and traditional (right) trash receptacles

MATRIX OF STREETS AND RECOMMENDED SITE FURNITURE

| | | | | | |
|----------------------|-----------------|--|--|--|--|
| Massachusetts Avenue | | | | | |
| New York Avenue | | | | | |
| New Jersey Avenue | | | | | |
| H Street | N O N E | | | | |
| Eye Street | N O N E | | | | |
| K Street | | | | | |
| L Street | N O N E | | | | |
| 7th Street | N O N E | | | | |
| 6th Street | | | | | |
| 5th Street | | | | | |
| 4th Street | N O N E | | | | |
| 3rd Street | N O N E | | | | |
| 2nd Street | N O N E | | | | |
| Reservations | | | | | |
| Plaza | CUSTOM SELECTED | | | | |

TRADITIONAL METAL BENCH

CONTEMPORARY METAL BENCH

CUSTOM METAL BENCH

TRADITIONAL TRASH RECEPTACLE

CONTEMPORARY TRASH RECEPTACLE



Pressed concrete pavers

PRESSED CONCRETE PAVERS

Pressed concrete pavers are recommended for all of the Triangle's avenues and for H, 7th, 6th, 5th, and 2nd Streets and the interior sidewalk zone of K Street. These pavers should be gray in color and should be set on a 4" concrete base.

K STREET UNIT PAVERS

Along K Street, a special unit paver is recommended for the sidewalk zone adjacent to the street. The material should be clay brick with a warm brown color.

EXPOSED AGGREGATE CONCRETE PAVEMENT

Exposed aggregate concrete pavement with a fine texture is recommended for the Reservations, as this resembles the material that was originally envisioned in the 1902 design of the Monumental Core.

PLAZA PAVEMENT

For the plazas at the intersection of 5th and K Streets, quartzite, marble, or similar material pavers in contrasting brown and buff colors are recommended.

BRICK

Brick pavers, consistent with DDOT standards, are recommended for Eye, L, 3rd, and 4th Streets.

MATRIX OF STREETS AND RECOMMENDED PAVING AND CURBS

| | | | | | | | |
|----------------------|--|--|--|--|--|--|--|
| Massachusetts Avenue | | | | | | | |
| New York Avenue | | | | | | | |
| New Jersey Avenue | | | | | | | |
| H Street | | | | | | | |
| Eye Street | | | | | | | |
| K Street | | | | | | | |
| L Street | | | | | | | |
| 7th Street | | | | | | | |
| 6th Street | | | | | | | |
| 5th Street | | | | | | | |
| 4th Street | | | | | | | |
| 3rd Street | | | | | | | |
| 2nd Street | | | | | | | |
| Reservations | | | | | | | |

PRESSED CONCRETE PAVERS

K STREET UNIT PAVERS

EXPOSED AGGREGATE CONC.

BRICK

GRANITE CURB

STANDARD BRICK GUTTER

3' BRICK GUTTER



K Street unit pavers (shown for color and texture only)

GRANITE CURB

A 7"H x 8"W x 6'-0"L granite curb, consistent with DDOT standards, is recommended for all streets within the neighborhood.

STANDARD BRICK GUTTER

A standard, 12" wide brick gutter, consistent with DDOT standards, is recommended for all streets within the neighborhood except K Street.

3' BRICK GUTTER

The brick gutters along K Street should be widened to 3' along the entire length of the street to help mark the special significance of the street as well as enable a more gradual break in the cross-slope.

CROSSWALKS

The DDOT standard "Piano"/"Ladder" bar type thermo-plastic markings are recommended for all crosswalks.

UNIT PAVERS

See page 35.

LOW-IMPACT DEVELOPMENT OPPORTUNITY

Paved areas should be graded to ensure that stormwater runoff is directed to planting strips and tree boxes.

